



## What is fetal therapy?

Fetal therapy is a highly specialized field that involves therapeutic intervention, such as surgery, to correct or treat a fetal anomaly or condition. In almost every case where fetal therapy is needed, the fetus's life is at risk due to the diagnosed condition.

The Fetal Therapy Center at the University of Miami/Jackson Memorial Medical Center offers minimally invasive techniques that can successfully treat previously untreatable life-threatening conditions diagnosed while the baby is still in the womb.

Fetal therapy can improve the survival rates for babies suffering fatal disorders and can prevent or reduce the likelihood of unfavorable outcomes, enhancing a baby's overall quality of life.

### Fetal Therapy Center

at University of Miami/Jackson Memorial Medical Center

Tel. 305-585-6636 • Fax 305-357-5675  
[www.umjacksonfetaltherapy.com](http://www.umjacksonfetaltherapy.com)

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## Diagnostic Tests

Accurate diagnosis is essential in planning adequate treatment for you and your baby, and that is why prior to fetal therapy we perform a series of tests to determine or confirm a suspected diagnosis.

Diagnostic tests may include:

- **Ultrasound** is used to evaluate the fetus for any anomalies.
- **Fetal echocardiogram** studies are performed by our highly skilled sonographers.
- **Amniocentesis** - This procedure takes a sample of amniotic fluid, which contains cells excreted by the fetus, to be analyzed for chromosome abnormalities like Down Syndrome, spina bifida, or other genetic diseases.
- **Chorionic villus sampling (CVS)** - This more invasive test is used to confirm a suspected genetic problem after initial screening. CVS takes a few cells from the placenta so that the doctor can analyze them for anomalies.
- **Diagnostic fetoscopy**
- **Fetal blood sampling**
- **Fetal skin/muscle biopsy**
- **Ultrafast fetal MRI** – This advanced imaging technique requires no sedation of mother or fetus.

## Surgery

***The Fetal Therapy Center at University of Miami/Jackson Memorial Medical Center has some of the best outcomes in the world.***

The majority of the conditions we see require surgery *in utero* (in the womb), while others may need less invasive procedures. A few patients only require careful monitoring until delivery, with treatment planned for after the baby is born.

Some of the procedures we perform include:

- Amniopatch for iatrogenic rupture of membranes
- Chorioangioma
- Cordocentesis
- Diagnostic fetoscopy
- Fetal cytoscopy and shunt placement for fetal lower urinary tract obstruction
- Management of fetal tumors
- Intrauterine intravascular transfusions
- Laser surgery for selective intrauterine growth restriction in monochorionic twins

- Laser surgery for twin-to-twin transfusion syndrome (TTTS)
- Lysis of amniotic bands
- Thoracoamniotic shunts
- Tracheal occlusion for congenital diaphragmatic hernia
- Treatment for TRAP Sequence and other discordant monochorionic twins

## Delivery

***Jackson's Neonatal Intensive Care Unit (NICU) is one of the largest in the country.***

Depending on your baby's condition and other factors, you may deliver at your home hospital or we may recommend that you deliver at Jackson Memorial Hospital (Jackson). At Jackson you will have access to state-of-the-art facilities including a triage and emergency unit for pregnant women, operating rooms adjacent to the labor and delivery suites, and a mother and baby unit.

Labor and delivery units are located adjacent to the hospital's neonatal intensive care unit (NICU). If a child has complications or is in distress during or after birth, he or she can be immediately taken to the NICU, which is one of the largest neonatal intensive care units in the country and is staffed by University of Miami Miller School of Medicine neonatologists who care for the most critical newborns with some of the best outcomes in the world.

## Location

The Fetal Therapy Center is located at Jackson Memorial Hospital, the University of Miami's primary teaching hospital. At this unparalleled venue, patients receive care driven by the latest advances in the field and by research conducted at the University of Miami Miller School of Medicine. Jackson's Holtz Children's Hospital is world renowned for its neonatal and pediatrics program. Post-natal care for infants is provided by a team of experienced neonatal and pediatric specialists.

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## Fetal Therapy Team

***Dr. Rubén Quintero pioneered the selective laser surgery technique to treat twin-to-twin transfusion syndrome (TTTS) and proposed the staging classification of TTTS that is used worldwide.***

The Fetal Therapy Center team includes highly specialized physicians, and numerous clinical and research support staff including nurses, and ultrasound and surgical technicians.

**Dr. Rubén Quintero**, director of the Fetal Therapy Center and the Division of Maternal-Fetal Medicine at the University of Miami Miller School of Medicine/Jackson Memorial Medical Center, is widely known for developing the field of operative fetoscopy to treat birth defects *in utero* using minimally invasive techniques. He pioneered the selective laser surgery technique to treat twin-to-twin transfusion syndrome (TTTS) and proposed the staging classification of TTTS that is used worldwide. Dr. Quintero, board-certified in obstetrics and gynecology and maternal-fetal medicine, is one of a few physicians who performs laser surgery to correct the syndrome. He has also developed the surgical techniques to treat *in utero* amniotic bands, congenital diaphragmatic hernias, fetal tumors and other fetal and placental disorders.

**Dr. Eftichia V. Kontopoulos** is a maternal-fetal medicine specialist and fetal surgeon and director of the Division of Obstetrical Ultrasound at the University of Miami Miller School of Medicine. She is board-certified in obstetrics and gynecology and maternal-fetal medicine. Dr. Kontopoulos is the author of numerous scientific articles and has co-authored chapters on the topic of fetal therapy and twin-to-twin transfusion syndrome.

## What You Can Expect

Once your regular physician has completed a referral and provided your medical records, our doctors will evaluate the information and make a recommendation. If it is determined that you should travel to the center for further evaluation and possible surgery, our team will begin insurance verification and will speak to you about financial clearance. Once financial clearance is complete, the fetal therapy coordinator will contact you to set an appointment and to provide you with information pertinent to your visit.

For more detailed information about what you can expect at the Fetal Therapy Center, visit [www.umjacksonfetaltherapy.com](http://www.umjacksonfetaltherapy.com).